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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/724,318 | 11/28/2000 | Ali Yahiaoui | KCC-14,851 | 6484 |

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EXAMINER

MCKANE, ELIZABETH L

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/08/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,318

Applicant(s)

YAHIAOUI ET AL.

Examiner

Leigh McKane

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 12-27 and 34-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12-27 and 34-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The indicated allowability of claims 5-7 is withdrawn. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 12-14, 19-21, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boney et al (U.S. Patent No. 5,932,495) in view of Syverson (U.S. Patent no. 5,612,045) and Yahiaoui et al (WO 98/09662).

With respect to claims 1-4, 12, 13, 19-21, and 34-37, Boney et al teaches nonwoven substrates (col.2, line 26) for use as disposable diapers and training pants, sanitary napkins and tampons, incontinence products, and medical dressings (see Abstract). As these products come into contact with bodily fluids such as urine, they will be in contact with a source of aqueous bacteria. Boney et al further discloses treating the synthetic polymers or chitosan, from which the nonwoven substrates are made, with a surfactant such as an alkyl polyglycoside in an amount of 0.5 and 1% by weight (Examples 5A and 6). See col.2, lines 12-13. The nonwoven substrates may be a spunbonded, a meltblown, or a carded web (col.2, lines 26-32). The nonwoven substrate may also comprise biconstituent fibers (col.3, lines 41-43). Boney et al discloses that odors containing bacterial derived components are problematic in these disposable personal

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products. See col.1, lines 45-47. However, Boney et al does not teach reducing the bacterial growth.

Syverson teaches that it was known in the art to treat feminine hygiene products, diapers, incontinence products, and medical bandages (col.3, lines 47) with antimicrobials. See col.5, lines 19-27). As antimicrobials will reduce bacterial growth in the products and thus, will reduce odors associated with the bacteria, it would have been obvious to one of ordinary skill in the art to reduce bacterial growth in the products of Boney et al.

Boney et al discloses that the alkyl polyglycoside is added to the melt or to chitosan before the nonwoven webs are formed. See col.2, lines 11-14 and Examples 5A and 6. Boney et al is silent as to adding the alkyl polyglycoside by dipping, soaking, spraying, printing, or foaming onto the nonwoven substrate.

Yahiaoui et al teaches that alkyl polyglycosides may be added to personal care products like those of Boney et al (page 1, lines 10-14). Yahiaoui et al discloses adding the alkyl polyglycosides to the nonwoven substrates in a manner different from that used by Boney et al. Yahiaoui et al teaches that the alkyl polyglycoside may be added by “conventional means such as spraying, coating, dipping and the like” (page 4, lines 4-6). As the treating means of Yahiaoui et al is merely an alternate method of treating the nonwoven substrate with the alkyl polyglycoside, it would have been obvious to one of ordinary skill in the art to substitute one known means of surface treating for another, where the results are not unexpected.

As to claim 14, although Boney et al does not specifically teach that the nonwoven solid is a liner material, the specific products disclosed by Boney et al (e.g. diaper, sanitary napkins, incontinence products) have a liner layer. Thus, it would have been obvious to one of ordinary

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skill in the art to treat the liner layer with the alkyl polyglycoside solution of Boney et al since the liner layer is the first layer to come in contact with the body fluid and is in contact with skin and thus, will be susceptible to odors.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boney et al, Syverson, and Yahiaoui et al as applied to claim 1 above, and further in view of Stokes et al (U.S. Patent no. 5,931,823).

While Boney et al teaches treatment of disposable diapers and training pants, sanitary napkins and tampons, incontinence products, and medical dressings with alkyl polyglycosides, the reference is silent to the treatment of a surge layer particularly.

Stokes et al teaches nonwoven substrates (col.2, lines 45-46) for use as disposable diapers and training pants, feminine hygiene products, and incontinence products (col.2, lines 50-53) and their treatment with a C₈₋₁₀ alkyl polyglycoside (col.10, lines 61-63). The substrate itself may be used as a surge layer (col.8, line 58 to col.9, line 23). As surge layers are common components in personal care products, it would have been obvious to treat such in the method of Boney et al with Syverson and Yahiaoui et al.

5. Claims 1-4, 12, 14, 15, 17-27, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiaoui et al in view of Syverson.

Yahiaoui et al teaches nonwoven substrates for use as disposable diapers and training pants, sanitary napkins and tampons, incontinence products, and medical dressings. See page 3, lines 11-15. As these products come into contact with bodily fluids such as urine, they will be in contact with a source of aqueous bacteria. Yahiaoui et al further discloses treating the nonwoven substrates with a C₈₋₁₀ alkyl polyglycoside (page 3, line 27) in an amount of about 0.2% to about

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5%. See page 15, lines 25-28. The nonwoven substrates may be a spunbonded, a meltblown, a carded, or a coformed (biconstituent) web. See page 3, lines 17-18. Yahiaoui et al further evidences that the nonwoven substrate may be used as a liner (as in Figure 2) or it may be part of a multi-layer laminate (page 13, lines 18-30). Moreover, the nonwoven substrate may be a distribution or retention layer. See page 24, lines 2-3.

Syverson teaches that it was known in the art to treat feminine hygiene products, diapers, incontinence products, and medical bandages (col.3, lines 47) with antimicrobials. See col.5, lines 19-27). As antimicrobials will reduce bacterial growth in the products and thus, will reduce odors associated with the bacteria, it would have been obvious to one of ordinary skill in the art to reduce bacterial growth in the products of Yahiaoui et al.

Although Yahiaoui et al does not disclose specific use of the nonwoven fabric as a medical gown, cap, glove, drape, or face mask, or as industrial workwear, Yahiaoui et al does teach that nonwovens are known to be used in health care items and industrial products. See page 1, lines 10-15. Yahiaoui et al further evidences use of nonwoven materials for filtration and protective garments in medical and industrial uses (page 2, lines 5-8). Yahiaoui et al indicates that any nonwoven being used in an application where improved wicking and distribution is desired would benefit from treatment with the alkyl polyglycoside solution. Therefore, one would have found it obvious to use the treated nonwoven of Yahiaoui et al in a variety of medical and industrial uses.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiaoui et al and Syverson as applied to claim 1 above, and further in view of Stokes et al.

While Yahiaoui et al teaches treatment of disposable diapers and training pants, sanitary

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napkins and tampons, incontinence products, and medical dressings with alkyl polyglycosides, the reference is silent to the treatment of a surge layer particularly.

Stokes et al teaches nonwoven substrates (col.2, lines 45-46) for use as disposable diapers and training pants, feminine hygiene products, and incontinence products (col.2, lines 50-53) and their treatment with a C₈₋₁₀ alkyl polyglycoside (col.10, lines 61-63). The substrate itself may be used as a surge layer (col.8, line 58 to col.9, line 23). As surge layers are common components in personal care products, it would have been obvious to treat such in the method of Yahiaoui et al with Syverson.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 703-305-3387. The examiner can normally be reached on Monday-Wednesday (7:15 am-4:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 703-308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Leigh McKane
Leigh McKane
Primary Examiner
Art Unit 1744

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September 30, 2003